The Effectiveness of Using a Digital Learning System (DLS) Through a Talking Stick Type Cooperative Learning Model in Social Studies Subjects for Class V Elementary School

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Abstract: Following a breakthrough in the development of learning technology, the *Digital Learning System* (DLS) is a breakthrough in developing learning technology where students can take advantage of technology in the form of software or hardware, online or offline, that is packaged attractively and interactively. This study aimed to determine the effectiveness of using DLS through the *Talking Stick* in terms of learning motivation and student learning outcomes. This research is descriptive analysis research with a quantitative approach; namely, the data obtained is quantitative data that will be analyzed descriptively. The sample used in this study is fifth-grade elementary school students, as many as 14 students in social studies subjects. The research was conducted at SD Negeri 124405 Pematang Siantar. The results showed that 78.58% of students already had learning motivation, and 85.71% of student learning outcomes passed the KKM. Based on these data, using the *Digital Learning System* Cooperative learning model *Talking Stick* has been said to be effective in motivation and student learning outcomes in class V SD Negeri 124405 Pematang Siantar.

INTRODUCTION

The development of the 21st century is marked by the use of information and communication technology in all aspects of life, including the learning process. Technology connects the world that transcends geographical barriers so that the world becomes borderless. 21st-century national education aims to realize the ideals of the nation, namely the Indonesian people who are

prosperous and happy, with an honorable and equal position with other countries in the global world, through the formation of a society consisting of quality human resources, namely independent individuals, willing and able to realize the nation's ideals (Joenaidy, 2019).

Learning should be oriented towards learning as individuals with potential, abilities, interests, and motivations, which can be explored and developed through the learning process. Learning is introduced to broad learning resources (broad-based learning), including technological instruments such as learning aid media (as a tool) that support learning to accelerate and expand learning knowledge and information. Technology is also considered a scientific discipline that should be mastered by learning as a provision in the learning process and life. For this reason, teachers can integrate technology in planning, implementing, developing, and evaluating learning (Daryanto & Karim, 2017)

The technological progress that has penetrated the field of education can be seen in the many digital teaching media that support the online and offline learning process. This shows that the conventional era is starting to end and turning to the period of digitalization. This condition has significantly impacted education practitioners, practitioners, and educators. Changes in the learning system but without proper readiness have created obstacles and challenges that have penetrated all levels, including primary education (Indrajit & Musiin, 2020).

At this time, information around the world can be accessed easily and quickly through technological advances; even young people have started to actively use electronic media such as cellphones, computers, and laptops and can access the internet. These various electronic devices are used as entertainment media where they use them to play games, watch movies, and so on. This habit has a negative impact; if used correctly, it will have positive benefits if we use it wisely. The current learning process can be done using several models, including conventional and modern ones. In conventional learning, they use direct meetings in the teaching and learning process so that this concept faces

obstacles related to limitations in place, location, and time in implementation with increasing student and teacher activities. Learning methods are very modern and conventionally oriented, and expectations for students and teachers to create effective learning to achieve quality effectively in the world of learning and education (Heinich et al., 2014). However, conventional learning models are ineffective due to increasingly advanced technological developments. With the development of computer technology, information, and communication technology, modern (online) learning models have developed (Kistofer et al., 2019).

To follow a breakthrough in the development of learning technology Digital Learning System (DLS) is a breakthrough in developing learning technology, where students can take advantage of technology in the form of software or hardware, online or offline which is packaged attractively and interactively. Students will be wiser in using technology in the learning process. In addition, in learning, students are not only required to see the results of the value of memorizing but

students' creativity and collaboration must be built from an early age.

Teachers play a crucial role in helping the development of students to realize their life goals optimally. The interests, talents, abilities, and potentials of students will not be able to develop optimally without the help of a teacher. That is why, in addition to paying attention to students in groups, teachers are also expected to pay attention to students individually. Therefore, education must be designed to allow students to develop their potential naturally and creatively in an atmosphere of freedom, togetherness, and responsibility (Ghufron, 2018).

The design of learning in the 21st century is expected to be compiled by teachers to develop student potential through computer-based technology and online media. Teachers can build student potential through tasks that can be done using computer-based technology and online media as a tool. To find learning resources. Creativity and learning innovation carried out by teachers will allow optimal use of computer-based technology and online-based media to achieve learning objectives (Muhammad et al., 2017).

One of the subjects at the elementary school (SD) level is Social Studies which is a subject that can provide broad knowledge insights about local and global communities— understanding to students, especially at the elementary level. It should be noted that social studies learning that contains social problems requires a solution that involves the active role of students through the implementation of interactions in groups, physical activity, and active thinking. The subject matter that needs to be given to students regularly has been determined in the curriculum of each educational institution. These criteria require an interactive learning model to increase students' creativity in social studies learning (Susanto, 2016).

Suwatra & Wayan (2007) considers that the cooperative learning model aims to help students work in group discussions, have equal opportunities, and ensure all members have learned. Based on this, the cooperative learning model should be suitable for social studies learning, which suggests group interaction. A learning model that further explores the involvement of children in physical and psychological

learning encourages children to obtain good social studies learning outcomes. The model is a talking stick-type cooperative learning model assisted by DLS.

Social studies have a relatively large portion of the material in the curriculum compared to other subjects. Therefore, many students are unhappy with social studies lessons; eventually, they think that social studies are a tedious, uninteresting, and very confusing lesson that makes students reluctant and lazy to study and causes social studies learning outcomes to get low grades. Social studies lessons should be delivered with innovative methods so that learning is not monotonous and makes students active in learning activities (Lidia et al., 2018). Therefore, social studies lessons can be delivered with another alternative, cooperative learning model. The cooperative learning model is a learning model where students are grouped into groups of 4-6 to solve a problem and complete a task to achieve a common goal (Trianto, 2009).

The talking stick learning model is one of the cooperative learning models in which this learning encourages

students to dare to express their opinions. The talking stick learning model is very appropriate for developing the PAIKEM learning process, namely active, innovative, creative, effective, and fun learning. This learning strategy is carried out with the help of a stick; whoever holds the stick is obliged to answer questions from the teacher after the students learn the subject matter. Talking sticks are suitable for elementary, middle, and high school/ vocational students. In addition to practicing speaking, this learning will create a pleasant atmosphere and make students active (Shoimin, 2014).

This is supported by the opinion of Kurniasih & Sani (2017), who considers the advantages of the talking stick type cooperative learning model are that it can test students' readiness in terms of mastery of the material, trains understanding of the material quickly, students are more motivated to learn because students never know the stick will come in turn. This makes students accustomed to answering questions and expressing their opinions so that students' learning motivation arises to learn evenly.

About realizing technological developments in the education system, the talking stick-type cooperative learning model is implemented through the Digital Learning System (DLS). One of the studies from Puspitawangi (2016), shows that there are significant differences in student social studies learning outcomes between those taught by the talking stick type cooperative learning model assisted by audio media and conventional learning models. This shows that the talking stick-type cooperative learning model assisted by audio media significantly affects social studies learning outcomes for fifth-grade students.

METHODOLOGY

This study uses descriptive analysis research with a quantitative approach; namely, the data obtained is quantitative data that will be analyzed descriptively. According to Sugiyono (2010), the descriptive method is used to describe or analyze a research result but not to make broader conclusions. This research was conducted using quantitative descriptive, a form of research based on data that can be measured or calculated directly expressed in numbers or the form of

numbers, then interpreted descriptively based on theories and literature related to the use of Digital Learning Systems (DLS)—talking Stick Type Cooperative Learning Model. The data collection technique in this study was obtained from the value of learning motivation and learning outcomes. The value of learning motivation is obtained from observations and questionnaires while learning outcomes are taken from the combined value of assignments and written tests.

The subjects for this study were fifth-grade students of SD Negeri 124405 Pematang Siantar. The number of issues in this study was 14 students. The object of this research is learning outcomes and motivation on using the Digital Learning System (DLS) through the Talking Stick Type Cooperative Learning Model for the material of Indonesian Geographical Characteristics. This study has three types of data: learning implementation data, learning motivation data, and learning outcomes data.

Effectiveness can be measured if the criteria for implementing learning can carry out learning. Before going to point, the teaching provided must be ensured that the lesson plan carries it out. This study measures the effectiveness of using the Digital Learning System (DLS) through the Talking Stick Type Cooperative Learning Model. In this case, the point is in terms of student learning outcomes. The value obtained from the learning outcomes is a combination of assignment and written test scores, with the respective weights being 40% and 60%. The final score obtained will be compared with the KKM for mathematics, which is 75. If at least 75% of students have passed the KKM, using the Digital Learning System (DLS) through the Talking Stick Type Cooperative Learning Model is said to be effective in learning outcomes.

The value of learning motivation was obtained from a closed questionnaire containing questions that students would respond to. Researchers analyzed this questionnaire using an attitude scale, namely the Likert Scale. Researchers made a questionnaire containing 30 statements, of which 15 statements were favorable. Alternative answers that can be chosen are Always (SL), Often (S), Rarely (J), and Never (TP). Furthermore, the values that have

been obtained are categorized based on table 1 below:

Table 1 Questionnaire Criteria

No.	Interval	Category
1.	81 – 100	Very Good
2.	66 – 80	Good
3.	51 – 65	Passably
4.	0 – 50	Deficient

RESULT & DISCUSSION
Result

This study aims to determine the effectiveness of using DLS through the Talking Stick Cooperative Learning Model regarding learning motivation and student learning outcomes. The results show that respondents' perceptions of the distribution of the questionnaire results on students' learning motivation have good motivation. In analyzing students' learning motivation, the researcher used a questionnaire instrument to assess students' learning motivation. The following are the results of perceptions about the tasks given by the teacher, as shown in Figure 1.

Figure 1 Overview of the Value of Student Motivation in the Learning Process

Table 2 Analysis of the Number of Student Responses

No.	Student Identity	Score	Motivational Value	Description
1.	Student 1	104	87	Very Good
2.	Student 2	100	83	Very Good
3.	Student 3	76	63	Cukup Baik
4.	Student 4	113	95	Very Good
5.	Student 5	63	53	Passably
6.	Student 6	91	76	Very Good
7.	Student 7	97	81	Very Good
8.	Student 8	76	63	Passably
9.	Student 9	97	81	Very Good
10.	Student 10	88	73	Good
11.	Student 11	96	80	Good
12.	Student 12	84	70	Good
13.	Student 13	87	73	Good
14.	Student 14	97	81	Very Good

The data were analyzed based on the provisions set so that the number of student responses could be known. The analysis of the number of student responses can be seen in table 2.

Based on the results above, it can be seen that most of the students already have good motivation. Students who already have good motivation are $\frac{11}{14}$ × 100% = 78.58%, while students who do not have good motivation are $\frac{3}{14}$ x 100% = 21.42%.

Based on the data analysis of learning outcomes, it can be seen from the value of assignments and written tests. Assignments are given once before carrying out the written test. This assignment is a scoring assignment and helps students practice questions. The assignment's final score weight 40% and will be accumulated with the final score of the written test. Student assignment score data can be seen in Figure 2.
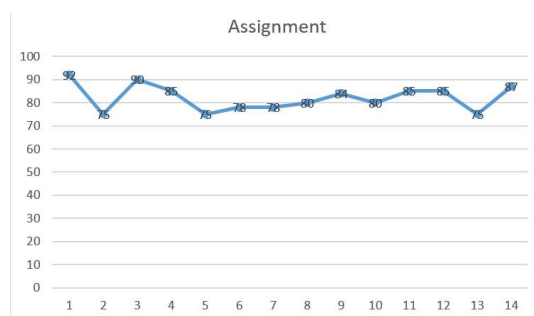

Figure 2 Overview of Task Values

The written test is held at the end of the meeting after all the material has been delivered. The final score of the written test weighs 60% and will be accumulated with the assignment's final score. Data analysis can be seen in Figure 3.
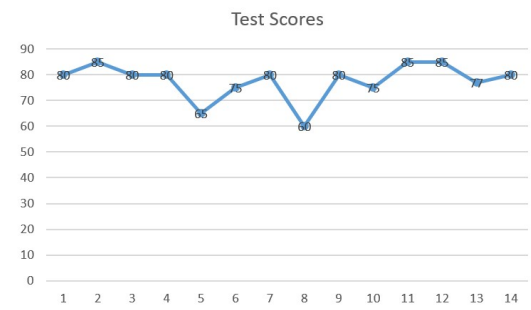

Figure 3 Overview of Written Test Scores

After performing the calculations above, the scores for assignments and written tests are accumulated using the final score formula on predetermined learning outcomes. The accumulated scores for assignments and written tests can be seen in Figure 4.
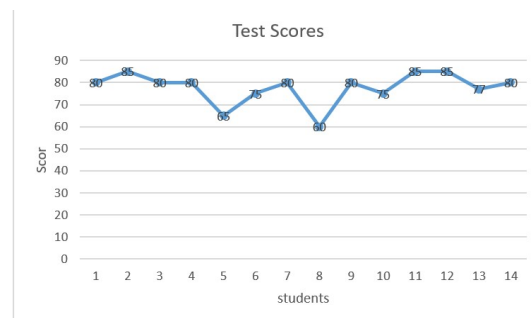

Figure 4 Overview of Learning Outcome Values

In the final score of learning outcomes students are said to have passed if the final score of student

learning outcomes has reached the KKM, which is 75. Students who have passed the KKM are 85.71%, while students who have not reached the KKM are 14.28%.

Discussion

1. Learning Motivation

According to the questionnaire data analysis results, as many as 11 students, or 78.58% of students, already have good learning motivation. Meanwhile, three, or 21.42% of students, do not have good learning motivation. This is indicated by the fact that most students already have perseverance in learning by attending school according to the applicable rules. Then, students have an unyielding attitude when they find something that is considered difficult by asking a friend who understands better or the teacher. In addition, most students prepare well to face the daily test or exam that will be passed by repeating the material and practicing questions. However, not a few students only prepare themselves the day before the test is carried out using the overnight racing system.

In addition to the positive attitude that grows in students, many attitudes still need to be improved, including

students who have not been able to learn independently and still depend on others to discuss and even copy their friends' work. Students do not yet have a high initiative or awareness to study material at home before it is discussed in class. The time used by students is sometimes wasted playing or doing things that are not necessary, so it hampers the learning process. Interest in students needs to grow to be aware of achievement, not just to get grades but to see the process and gain knowledge that is useful for the future.

The use of DLS was chosen because it positively relates to students' learning motivation. This statement is supported by research conducted by Sujiwo & A'yun (2020), with the title The Effect of E-Learning Utilization on Student Learning Motivation which states that there is an effect of e-Learning learning on student learning motivation based on R Square indicating that student learning motivation is influenced by 77.3%. On the other hand, it is also realized that the development of technology and communication affect the education sector (Ratheeswari, 2018); this influence encourages changes in improving the teaching process,

especially in using electronic teaching media.

Based on the results of the data analysis above, it can be seen that most of the students already have good motivation to learn. This proves that students are interested in using applications such as Quiziz, animated video, and Google Classroom using the Digital Learning System (DLS) through the Talking Stick Cooperative learning model. Under predetermined criteria, applying a digital learning system (DLS) on the Talking Stick Cooperative learning model is said to be effective if at least 75% of students already have good motivation so that quantitatively the percentage of students who already have good motivation is 78.58 %.

2. Learning outcomes

The value of learning outcomes is obtained by taking 40% of the assignment's value and 60% of the written test score; then, the value of both is accumulated. Student achievement is classified as high, with only two students who get a score below the KKM. The highest value obtained is 84.8, and the lowest value is 68.

Based on the final score of learning outcomes, the percentage of students who have passed the KKM is 85.71%. Suppose these results are compared with the effectiveness category. In that case, using the Digital Learning System (DLS) through the Talking Stick Cooperative learning model is effective because students who pass the KKM reach 85.71%.

Using the Digital Learning System (DLS) through the Talking Stick Cooperative learning model in social studies subjects in grade 5 SD supports existing theories regarding the use of technology in learning. Through several applications to support the transfer of knowledge, it is easier for students to understand social studies material clearly. In addition, through information technology, students can learn outside school hours. Students can access information through available technology to improve the learning process.

Previous research conducted by Kistofer et al. (2019), entitled "Development of Digital Learning Media Systems Using Digital Learning Systems, " contains materials, tutorials, simulations, experiments, consultations, and evaluations carried out online. Not only that, but teachers can also be better

prepared for teaching and can make the teaching and learning process more effective and exciting. DLS is very suitable to be used in increasing student knowledge and is an independent learning system that can be applied in everyday life.

CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that the effectiveness of the use of the Digital Learning System (DLS) through the Talking Stick Cooperative learning model on social studies subjects in class V SD in terms of learning motivation can be said to be effective to be applied in class V SD Negeri 124405 Pematang Siantar. In addition, the use of the Digital Learning System (DLS) through the Talking Stick Cooperative learning model in terms of student learning outcomes can be said to be effective; this is evident from the KKM graduation reaching 85.71%.

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